

## Author index

- Abrahamsen, N. *see* Nishimura, E.  
 Adelhorst, K. *see* Kofod, H.  
 Ahrén, B., Simonsson, E. & Karlsson, S. Glucagon-like peptide-1<sub>(7-36)</sub>amide and cytoplasmic calcium in insulin producing cells, 333  
 Ahrén, B. *see* Karlsson, S.  
 Amrani, M., Goodwin, A. T., Gray, C. C. & Yacoub, M. H. Ageing is associated with reduced basal and stimulated release of nitric oxide by the coronary endothelium, 79  
 Anderson, L. C. *see* Garrett, J. R.  
 Andersson, K. *see* Nowak, J.  
 Andonegui, G. *see* Giordano, M.  
 Areskog, N.-H. *see* Savard, G. K.  
 Arjamaa, O., Karlqvist, K., Vainionpää, V., Leppäluoto, J. & Vuolteenaho, O. Atrial plasma ANP and NH<sub>2</sub>-terminal proANP during right atrial pressure increase in humans, 481  
 Arner, A. *see* Boels, P. J.  
 Asea, A. *see* Jonsdottir, I. H.  
 Assender, J. W., Irenius, E. & Fredholm, B. B. Endothelin-1 causes a prolonged protein kinase C activation and acts as a co-mitogen in vascular smooth muscle cells, 451  
 Bäckström, T. *see* Kilarski, W. M.  
 Bakken, I. J. *see* White, L. R.  
 Benthin, G. *see* Nowak, J.  
 Berg, H. E. & Tesch, P. A. Changes in muscle function in response to 10 days of lower limb unloading in humans, 63  
 Berge, R. K. *see* Brunvand, H.  
 Billeter, R. *see* Puntschart, A.  
 Boels, P. J., Arner, A., Nilsson, B.-O., Svensson, C. & Uvelius, B. Growth resistance-sized arteries in response to bladder hypertrophy in the rat: time-course, DNA-synthesis and LDH-isoform pattern, 93  
 Borst, A. How do nerve cells compute? Dendritic integration in fly visual interneurons, 403  
 Britsch, S., Krippeit-Drews, P., Gregor, M., Lang, F. & Drews, G. Effects of glucagon-like peptide-1 on membrane potential and ion channels of mouse pancreatic  $\beta$ -cells, 353  
 Brodin, L. *see* Shupliakov, O.  
 Brors, O. *see* Stokke, M.  
 Brown, J. C. *see* McIntosh, C. H. S.  
 Brunvand, H., Frøyland, L., Westby, J., Hexeberg, E., Berge, R. K. & Grong, K. Peroxisomal fatty acid oxidation capacity is more resistant to ischaemic and reperfusion injury than mitochondrial fatty acid oxidation capacity in feline hearts, 133  
 Bülow, A. Differentiated effects of vasodilators on myogenic reactivity during partial inhibition of myogenic tone in pressurized skeletal muscle small arteries of the rat, 419  
 Cerretelli, P. *see* Narici, M. V.  
 Chen, J. *see* Nowak, J.  
 Chen, Z., Hedner, J. & Hedner, T. Substance P-induced respiratory excitation is blunted by  $\delta$ -receptor specific opioids in the rat medulla oblongata, 165  
 Claassen, H. *see* Narici, M. V.  
 Clausen, T. *see* Nielsen, O. B.  
 Conti, M. *see* Narici, M. V.  
 Dallos, G. *see* Komjáti, K.  
 Diener, M., Vujicic, Z. & Scharrer, E. Neuronally mediated anion secretion induced by short-chain fatty acids in the rat distal small intestine, 33  
 Dran, G. *see* Giordano, M.  
 Drews, G. *see* Britsch, S.  
 Duch, B. U., Petersen, J. A. K., Vinter-Jensen, L. & Gregersen, H. Elastic properties in the circumferential direction in isolated rat small intestine, 157  
 Edvinsson, L. *see* White, L. R.  
 Ekblom, B. *see* Malm, C.  
 Ekelund, U. & Mellander, S. Endogenous nitric oxide as a physiological regulator of vascular tone in cat skeletal muscle during haemorrhage, 471  
 Elsås, T. *see* White, L. R.  
 Enger, P. S. *see* Jansen, J. K. S.  
 Euler, A. von *see* Mörk, A.-S.  
 Faulkner, D. L. *see* Nikolovski, S.  
 Fähræus, C. *see* Theander, S.  
 Fournier, P. A. *see* Nikolovski, S.  
 Frandsen, U. *see* Hellsten, Y.  
 Fredholm, B. B. *see* Assender, J. W.  
 Frøyland, L. *see* Brunvand, H.  
 Fu, X. *see* Kilarski, W. M.  
 Gad, H. *see* Shupliakov, O.  
 Garrett, J. R., Zhang, X. S., Proctor, G. B., Anderson, L. C., & Shori, D. K. Apical secretion of rat submandibular tissue kallikrein continues in the absence of external stimulation: evidence for a constitutive secretory pathway, 299  
 Gavardi, C. *see* Narici, M. V.  
 Geffner, J. R. *see* Giordano, M.  
 Gelling, R. W. *see* McIntosh, C. H. S.  
 Giordano, M., Vermeulen, M., Trevani, A. S., Dran, G., Andonegui, G. & Geffner, J. R. Nitric oxide synthase inhibitors enhance plasma level of corticosterone and ACTH, 259  
 Göke, B., Steffen, H. & Göke, R. The signal transduction of the glucagon-like peptide-1 receptor: fishing beyond the protein kinase level, 321  
 Göke, R. *see* Göke, B.  
 Goodwin, A. T. *see* Amrani, M.  
 Grampp, W. *see* Theander, S.  
 Gray, C. C. *see* Amrani, M.  
 Gray, R. *see* Jalife, J.  
 Gregersen, H. *see* Duch, B. U.  
 Gregor, M. *see* Britsch, S.  
 Gromada, J. & Rorsman, P. Molecular mechanism underlying glucagon-like peptide-1 induced calcium mobilization from internal stores in insulin-secreting  $\beta$ TC3 cells, 349  
 Grong, K. *see* Brunvand, H.  
 Hagelin, E. M. *see* Stokke, M.  
 Hansen, L. H. *see* Nishimura, E.  
 Hansson, H.-A. *see* Hellsten, Y.  
 Hara, M. *see* Ogita, F.

- Hardebo, J. E. *see* Kährström, J.  
Hedner, J. *see* Chen, Z.  
Hedner, T. *see* Chen, Z.  
Hellsten, Y., Hansson, H.-A., Johnson, L., Frandsen, U. & Sjödin, B. Increased expression of xanthine oxidase and insulin-like growth factor I (IGF-I) immunoreactivity in skeletal muscle after strenuous exercise in humans, 191  
Hellstrand, K. *see* Jonsdottir, I. H.  
Hexeberg, E. *see* Brunvand, H.  
Hjelmqvist, H. *see* Ullman, J. E.  
Hjorth, S. A. & Schwartz, T. W. Glucagon and GLP-1 receptors: lessons from chimeric ligands and receptors, 343  
Hoffmann, P. *see* Jonsdottir, I. H.  
Holst, J. J. Glucagon, glucagon-like peptide-1 and their receptors: an introduction, 309  
Hoppeler, H. *see* Puntchart, A.  
Hoppler, H. *see* Narici, M. V.  
Hydbring, E. *see* Olsson, K.  
Ilebekk, A. *see* Stokke, M.  
Irenius, E. *see* Assender, J. W.  
Iwao, S. *see* Wu, W.  
Jalife, J. & Gray, R. Drifting vortices of electrical waves underlie ventricular fibrillation in the rabbit heart, 123  
Jansen, J. K. S. & Enger, P. S. NADPH diaphorase activity is asymmetrically distributed in the optic tectum during the period of eye migration in turbot, 515  
Johansson, B. L. *see* Wu, W.  
Johansson, C. *see* Jonsdottir, I. H.  
Johnson, L. *see* Hellsten, Y.  
Jonsdottir, I. H., Johansson, C., Asea, A., Hellstrand, K. & Hoffmann, P. Acute mental stress but not enforced muscle activity transiently increases natural cytotoxicity in spontaneously hypertensive rats, 443  
Jonsson, O. *see* Sørensen, V.  
Jurk, S. *see* Scholz, H.  
Kagaya, A., Ogita, F. & Koyama, A. Vasoconstriction in active calf persists after discontinuation of combined exercise with high-intensity elbow flexion, 85  
Karlberg, K.-E. *see* Nowak, J.  
Karlqvist, K. *see* Arjamaa, O.  
Karlsson, S. *see* Åhrén, B.  
Karlsson, S. & Åhrén, B. A role for islet peptide YY in the regulation of insulin secretion, 305  
Kayser, B. *see* Narici, M. V.  
Kährström, J., Hardebo, J. E. & Owman, C. Neonatal chronic sympathectomy in normotensive rats affects pial arteries: enhanced stiffness and reduced capacity to dilate, 217  
Kährström, J., Hardebo, J. E., Nordborg, C. & Owman, C. Neonatal pre-ganglionic sympathectomy affects morphometrically defined architecture in rat cerebral arteries, 225  
Khodakhah, K. *see* Ogden, D.  
Kiehn, O. & Midtgård, J. Transmission and processing of synaptic information in single neurones: an introduction, 367  
Kilarski, W. M., Fu, X., Bäckström, T., Roomans, G. M. & Ulmsten, U. Progesterone, oestradiol and oxytocin and their *in vitro* effect on maintaining the number of gap junction plaques in human myometrium at term, 461  
Kirk, O. *see* Kofod, H.  
Kirkeboen, K. A. *see* Stokke, M.  
Kofod, H., Kirk, O. & Adelhorst, K.  $\beta$ -Cell receptors for glucagon/GLP-1? Properties of exendin(9-39) in mouse islets, 347  
Komjádi, K., Velkei-Harvich, M., Tóth, J., Dallos, G., Nyáry, I. & Sándor, P. Endogenous opioid mechanisms on hypothalamic blood flow autoregulation during haemorrhagic hypotension and angiotensin-induced acute hypertension in cats, 53  
Koyana, A. *see* Kagaya, A.  
Krippeit-Drews, P. *see* Britsch, S.  
Kurtz, A. *see* Scholz, H.  
Kvestberg, T. *see* Steen, J. B.  
Landoni, L. *see* Narici, M. V.  
Lang, F. *see* Britsch, S.  
Leppälouoto, J. *see* Arjamaa, O.  
Li, L. *see* Wu, W.  
Lundberg, J. M. *see* Rinder, J.  
Lundgren, K. *see* Nishimura, C.  
Madsen, O. *see* Nishimura, E.  
Mäkinen, T. *see* Oska, J.  
Malm, C., Svensson, M., Sjöberg, B., Ekblom, B. & Sjödin, B. Supplementation with ubiquinone-10 causes cellular damage during intense exercise, 511  
Marikkala, V. *see* Oska, J.  
McIntosh, C. H. S., Wheeler, M. B., Gelling, R. W., Brown, J. C. & Pederson, R. A. GIP receptors and signal-transduction in mechanisms, 361  
Mellander, S. *see* Ekelund, U.  
Midtgård, J. *see* Kiehn, O.  
Midtgård, J. Active membrane properties and spatio-temporal synaptic integration in dendrites of vertebrate neurones, 395  
Miyachi, M. & Yano, H. Thinning of the capillary endothelium with physical activity shortens the diffusion distance of the pulmonary air-blood barrier, 513  
Mohus, I. *see* Steen, J. B.  
Mörk, A.-S., Euler, A. von, Roomans, G. M. & Ring, A. cAMP-induced chloride transport in NCL-SG3 sweat gland cells, 21  
Moshov, S. *see* Wei, Y.  
Myburgh, K. H. *see* Weston, A. R.  
Næss, P. A. *see* Stokke, M.  
Narici, M. V., Hoppeler, H., Kayser, B., Landoni, L., Claassen, H., Gavardi, C., Conti, M. & Cerretelli, P. Human quadriceps cross-sectional area, torque and neural activation during, 6-months strength training, 175  
Nielsen, O. B. & Clausen, T. The significance of active  $\text{Na}^+$ ,  $\text{K}^+$  transport in the maintenance of contractility in rat skeletal muscle, 199  
Nikolovski, S., Faulkner, D. L., Palmer, T. N. & Fournier, P. A. Muscle glycogen repletion from endogenous carbon sources during recovery from high intensity exercise in the fasted rat, 427  
Nilsson, B.-O. *see* Boels, P. J.  
Nilsson, U. *see* Sørensen, V.  
Nishimura, E., Abrahamsen, N., Hansen, L. H., Lundgren, K. & Madsen, O. Regulation of glucagon receptor expression, 329  
Noakes, T. D. *see* Weston, A. R.  
Nordborg, C. *see* Kährström, J.  
Nowak, J., Andersson, K., Benthin, G., Chen, J., Karlberg, K.-E. & Sylvén, C. Effect of nicotine infusion in humans on platelet aggregation and urinary excretion of major thromboxane metabolite, 101

- Nyáry, I. *see* Komjáti, K.
- Ogden, D. & Khodakhah, K. Intracellular  $\text{Ca}^{2+}$  release by  $\text{InsP}_3$  in cerebellar Purkinje neurones, 381
- Ogita, F., Hara, M. & Tabata, I. Anaerobic capacity and maximal oxygen uptake during arm stroke, leg kicking and whole body swimming, 435
- Ogita, F. *see* Kagaya, A.
- Ohsawa, I. *see* Wu, W.
- Olsson, K. & Hydbring, E. The preference for warm drinking water induces hyperhydration in heat-stressed lactating goats, 109
- Østensen, J. & Stokke, E. S. Energy requirement of sodium reabsorption in the thick ascending limb of Henle's loop in the dog kidney: effects of bumetanide and ouabain, 275
- Oshida, Y. *see* Wu, W.
- Oska, J., Rintamäki, H., Mäkinen, T., Marikkala, V. & Rusko, H. EMG-activity and muscular performance of lower leg during stretch-shortening cycle after cooling, 71
- Owman, C. *see* Kährström, J.
- Pahlmark, K. & Siesjö, B. K. Effects of the spin trap- $\alpha$ -phenyl-N-tert-butyl nitron (PBN) in transient forebrain ischaemia in the rat, 41
- Palmer, T. N. *see* Nikolovski, S.
- Pederson, R. A. *see* McIntosh, C. H. S.
- Petersen, J. A. K. *see* Duch, B. U.
- Pettersson, S. *see* Sørensen, V.
- Pieribone, V. A. *see* Shupliakov, O.
- Proctor, G. B. *see* Garrett, J. R.
- Puntschart, A., Vogt, M., Widmer, H. R., Hoppeler, H. & Billeter, R. Hsp70 expression in human skeletal muscle after exercise, 411
- Reidel, G. & Reymann, K. G. Metabolic glutamate receptors in hippocampal long-term potentiation and learning and memory, 1
- Reymann, G. *see* Reidel, G.
- Rinder, J. & Lundberg, J. M. Nasal vasoconstriction and decongestant effects of nitric oxide synthase inhibition in the pig, 233
- Ring, A. *see* Mörk, A.-S.
- Rintamäki, H. *see* Oska, J.
- Roomans, G. M. *see* Kilarski, W. M.
- Roomans, G. M. *see* Mörk, A.-S.
- Rønning, K., Sandvik, A. K., & Waldum, H. L. The fade of gastrin-stimulated gastric acid secretion in the rat is due to depletion of releasable mucosal histamine, 487
- Rorsman, P. *see* Gromada, J.
- Rundgren, M. *see* Ullman, J. E.
- Rusko, H. *see* Oska, J.
- Saltin, B. *see* Savard, G. K.
- Sandvik, A. K. *see* Rønning, K.
- Sándor, P. *see* Komjáti, K.
- Sato, J. *see* Wu, W.
- Sato, Y. *see* Wu, W.
- Savard, G. K., Areskog, N.-H. & Saltin, B. Maximal muscle activation is not limited by pulmonary ventilation in chronic hypoxia, 187
- Scharrer, E. *see* Deiner, M.
- Scherstén, T. *see* Sørensen, V.
- Scholz, H., Jurk, S. & Kurtz, A. Hypotonic swelling or stretch does not change cytosolic calcium in mouse renal juxtaglomerular cells, 283
- Schwartz, T. W. *see* Hjorth, S. A.
- Seisjö, B. K. *see* Pahlmark, K.
- Shori, D. K. *see* Garrett, J. R.
- Shupliakov, O., Pieribone, V. A., Gad, H. & Brodin, L. Presynaptic mechanisms in central synaptic transmission: 'biochemistry' of an intact glucamatergic synapse, 381
- Simonsson, E. *see* Åhrén, B.
- Sjaavaag, I. *see* White, L. R.
- Sjöberg, B. *see* Malm, C.
- Sjödin, B. *see* Hellsten, Y.
- Sjödin, B. *see* Malm, C.
- Sjöqvist, P. O. *see* Sørensen, V.
- Sørensen, V., Nilsson, U., Pettersson, S., Scherstén, T., Sjöqvist, P. O., Svensson, L. & Jonsson, O. Effect of a new inhibitor of lipid peroxidation on kidney function after ischaemia-reperfusion. A study on rat and rabbit kidneys, 289
- Steen, J. B., Mohus, I., Kvesetberg, T. & Walløe, L. Olfaction in bird dogs during hunting, 115
- Steffen, H. *see* Göke, B.
- Stokke, E. S. *see* Østensen, J.
- Stokke, M., Kirkeboen, K. A., Næss, P. A., Hagelin, E. M., Illebekk, A. & Brørs, O. Equal changes in L-type calcium channel density after, 60 min of ischaemia in normal and ischaemically preconditioned porcine myocardium, 147
- Svensson, C. *see* Boels, P. J.
- Svensson, L. *see* Sørensen, V.
- Svensson, M. *see* Malm, C.
- Sylvén, C. *see* Nowak, J.
- Tabata, I. *see* Ogita, F.
- Tesch, P. A. *see* Berg, H. E.
- Theander, S., Fähræus, C. & Grampp, W. Analysis of leak current properties in the lobster stretch receptor neurone, 493
- Thorens, B. & Widmann, C. Signal transduction and desensitization of the glucagon-like peptide-1 receptor, 317
- Tóth, J. *see* Komjáti, K.
- Trevani, A. S. *see* Giordano, M.
- Ullman, J. E., Hjelmqvist, H. & Rundgren, M. Intracerebro-ventricular angiotensin II increases tolerance to blood loss in conscious sheep, 265
- Ulmsten, U. *see* Kilarski, W. M.
- Uvelius, B. *see* Boels, P. J.
- Vainionpää, V. *see* Arjamaa, O.
- Valverde, I. & Villanueva-Peñacarrillo, M. L. *In vitro* insulinomimetic effects of GLP-1 in liver, muscle and fat, 359
- Velkei-Harvich, M. *see* Komjáti, K.
- Vermeulan, M. *see* Giordano, M.
- Villanueva-Peñacarrillo, M. L. *see* Valverde, I.
- Vincent, M. B. *see* White, L. R.
- Vinter-Jensen, L. *see* Duch, B. U.
- Vogt, M. *see* Puntschart, A.
- Vujcic, Z. *see* Deiner, M.
- Vuolteenaho, O. *see* Arjamaa, O.
- Wahren, J. *see* Wu, W.
- Waldum, H. L. *see* Rønning, K.
- Walløe, L. *see* Steen, J. B.
- Wei, Y. & Mojssov, S. Distribution of GLP-1 and PACAP receptors in human tissues, 355
- Westby, J. *see* Brunvand, H.

- Weston, A. R., Wilson, G. R., Noakes, T. D. & Myburgh, K. H. Skeletal muscle buffering capacity is higher in the superficial vastus than in the soleus of spontaneously running rats, 211
- Wheeler, M. B. *see* McIntosh, C. H. S.
- White, L. R., Bakken, I. J., Sjaavaag, I., Elsås, T., Vincent, M. B. & Edvinsson, L. Vasoactivity mediated by endothelin ET<sub>A</sub> and ET<sub>B</sub> receptors in isolated porcine ophthalmic artery, 245
- Widmann, C. *see* Thorens, B.
- Widmer, H. R. *see* Puntschart, A.
- Wilson, G. R. *see* Weston, A. R.
- Wu, W., Oshida, Y., Yang, W.-P., Li, L., Ohsawa, I., Sato, J., Iwao, S., Johansson, B. L., Wahren, J. & Sato, Y. Effect of C-peptide administration on whole body glucose utilization in STZ-induced diabetic rats, 253
- Yacoub, M. H. *see* Amrani, M.
- Yang, W.-P. *see* Wu, W.
- Yano, H. *see* Miyachi, M.
- Zhang, X. S. *see* Garrett, J. R.

## Subject index

- Acetazolamide, 275  
Acetylcholine, 419  
ACTH, 259  
Active zone, 369  
Adaptation, 411  
 $\alpha$ -adrenoceptor agonists, 233  
Ageing, 79  
Altitude, 187  
cAMP, 317, 321  
Anaerobic activity, 435  
Angiotensin-II, 53  
ANP, 481  
NT-proANP, 481  
Antagonist, 347  
Arterial compliance, 217  
Arteries, 471  
Autoregulation, 53
- Biomechanical wall properties, 157  
Bird dogs, 115  
Blood flow, 85  
Blood pressure, 265  
Bosentan, 245  
Brain damage, 41  
Buffering, 211  
Bumetanide, 275
- Calcium, 349, 367, 381, 395, 451  
Calcium antagonists, 147  
Calcium channel blockers, 419  
Calcium channels, 147  
Capillary pressure, 471  
Capsaicin, 233  
Carbachol, 333  
Cardiac arrhythmia, 123  
Catecholamines, 443  
CCK, 333  
 $\beta$ -cell, 365  
 $\beta$ -cells, 317  
HIT-T15 cells, 333  
RINm5F cells, 333  
Cellular damage, 511  
Cerebellum, 395  
Cerebral blood flow, 217  
CFTR, 21  
Chloride channel blockers, 21  
Chronic sympathectomy, 225  
 $\text{Cl}^-$  secretion, 33  
Cobalt, 493  
Combined exercise, 85  
Constitutive secretion, 299  
Cooling, 71  
Coronary artery, 79  
Coronary flow, 79  
Coronary vascular smooth muscle, 79  
Corticosterone, 259  
Cortisol, 109  
Cross-sectional area, 157  
Current kinetics, 493  
Cytoplasmic calcium, 333
- Dendrites, 367, 395  
Desensitization, 317  
Diabetics, 253  
DNA synthesis, 451  
Doppler effect, 123
- ECG, 123  
ECL cell, 487  
EDNO, 471  
EDRF, 471  
Elastic energy, 71  
Elbow flexion, 85  
Electromicroscopy, 513  
Electromyography, 63  
EMG, 71, 175  
Endothelin, 245  
Endothelin-receptors, 245  
Endothelium, 79, 513  
Endurance, 199  
Enkephalin, 165  
Enteric nervous system, 33  
Enzymes, 211  
Euglycaemic clamp, 253  
Exendin, 347  
Exercise, 175, 211, 411, 427, 511, 513  
Exocytosis, 369  
Extracellular potassium, 493
- Fibre type, 211  
Flatfish, 515  
Forebrain ischaemia, 41  
Forskolin, 321  
FR, 139317, 245  
Free radicals, 41  
Free radicals overtraining, 511
- Gap junctions, 461  
GLP-1, 329, 333, 347, 359  
Glucagon, 329, 347  
Glucagon-like peptide-1, 321, 349  
Glucocorticoids, 317  
Glucose-metabolism, 359  
Glycogen resynthesis, 427  
Goat, 109  
Growth, 93  
Growth factor, 451  
GRP, 333
- Haemodilution, 265  
Haemorrhage, 471  
Haemorrhagic hypotension, 53  
Heart rate, 187  
Heat exposure, 109  
Heat shock protein, 411  
Hepatectomy, 427  
Hepatocytes, 329  
Hippocampus, 395  
Histamine-stimulated, 487  
Human muscle, 411  
Human myometrium, 461

- Hyperhydration, 109
- Hypertrophy, 93, 175
- Hypothalamic blood flow, 53
- Impedance planimetry, 157
- In vivo* cytotoxicity, 443
- Inactivity, 63
- Incretin, 359
- Incretin hormones, 309
- Inositol triphosphate, 381
- Insulin, 349, 359
- Insulin action, 253
- Insulin secretion, 309, 333, 365
- Insulinomas, 317
- Intracellular calcium, 333
- Intracellular sodium, 199
- Ion transport, 21
- Iometric muscle actions, 63
- IP<sub>3</sub>, 367
- Ischaemic preconditioning, 147
- Islet, 365
- Islets, 329
- Isolated intestine, 157
- Isolated rat stomach, 487
- Kallikrein, 299
- Lactate dehydrogenase, 93
- Lactation, 109
- Leak channel, 493
- Leak current, 493
- Learning and memory, 1
- Lipoid peroxidation, 289
- Lobster-stretch receptor neurone, 493
- Local muscle groups, 435
- Long-term potentiation, 1
- LTP, 367
- Lung, 513
- Maleate, 275
- Mathematical model, 123
- Maximal oxygen uptake, 435
- Maximal voluntary contraction, 187
- Maximum voluntary force, 63
- Medulla oblongata, 165
- Metabolic glutamate receptors, 1
- Metabolic rate, 275
- Metamorphosis, 515
- mGluR, 367
- Microcirculation, 471
- Morphometry, 225, 513
- Motor control, 71
- Muscle, 175, 211, 427
- Muscle activation, 187
- Muscle fatigue, 199
- Muscle stimulation, 443
- Muscular performance, 71
- Myocardial ischaemia, 147
- Myocardial ischaemia and reperfusion, 133
- Myocardial metabolism, 133
- Myogenic reactivity, 419
- Myogenic tone, 419
- Na<sup>+</sup>, K<sup>+</sup> pump, 199
- Nasal mucosa, 233
- Natural killer cells, 443
- Naxolene, 53
- Nerve terminal, 369
- Neuronal network, 367
- Nicotine, 101
- Nitric oxide, 79, 233, 259
- N<sup>ω</sup>-nitro-L-arginine, 233
- Non-insulin-dependent diabetes mellitus, 349
- Non-insulin-dependent mellitus, 309
- Noradrenaline, 471
- Norepinephrine, 265
- NOS, 515
- Oestradiol, 461
- Olfaction, 115
- Opiates, 53
- δ-opioid receptor, 165
- Ophthalmic artery, 245
- Optical mapping, 123
- Ouabain, 199, 275
- Oxygen consumption, 275
- Oxygen radicals, 289
- Oxytocin, 461
- Parasympathetic stimulation, 299
- Patch-clamp, 21
- PCR, 411
- C-peptide, 253
- Peptide YY, 305
- Persistent vasoconstriction, 85
- Phorbol ester, 451
- Phosphorylation, 321
- Pial arteries, 225
- Pinacidil, 419
- Plantar flexion, 85
- Platelet aggregation, 101
- Potassium channels, 395
- Potassium current, 493
- Progesterone, 461
- Proglucagon processing, 309
- Protein kinase A, 321
- Protein kinase C, 451
- Pulmonary ventilation, 187
- Purkinje cells, 395
- Purkinje neurones, 381
- Pyramidal cells, 395
- PYY, 365
- Radioimmunoassay, 481
- Rat, 165, 211, 513
- Rat heart, 79
- Rat islets, 333
- Receptor, 321, 347
- Receptors, 317, 329
- Recovery, 63, 427
- Regional function, 133
- Renal ischaemia, 289
- Renin, 265, 283
- Resistance training, 175
- Resistance vessels, 93
- Respiration, 165
- Resting potential, 493
- Right arterial pressure, 481
- mRNA, 329
- Saliva, 299
- Sarafotoxin, 245

- Scroll wave, 123  
Short-chain fatty acids, 33  
Small intestine (rat), 33  
Smoking, 101  
Smooth muscle, 93, 451  
Sniffing, 115  
Sodium transport, 275  
Spin traps, 41  
Spiral wave, 123  
Spontaneously hypertensive rats, 443  
Steroidogenesis, 259  
Stress, 443  
Stretch-channels, 283  
Stretch-shortening cycle, 71  
Submandibular gland, 299  
Substance P, 165  
Supramaximal exercise, 435  
Sweat gland, 21  
Swimming, 435  
Sympathectomy, 217  
Sympathetic nerves, 225  
Synapsin, 367, 369  
Synaptic plasticity, 1  
Synaptic vesicle, 369  
Synaptotagmin, 369  
Thick ascending limb of Henle's loop, 275  
Thirst, 109  
Thromboxane, 101  
[<sup>3</sup>H]thymidine, 93  
7TM receptors, 309  
Trophic effect, 225  
Trophic effects, 217  
Ubiquinone-10, 511  
Vascular regulation, 233  
Vascular resistance, 471  
Vascular smooth muscle, 419  
Vasoconstriction, 245  
Vasodilation, 245, 419, 471  
Vasopressin, 265  
Veins, 471  
Ventilation, 115  
Voltage sensitive dyes, 123  
 $\dot{V}O_{2\text{MAX}}$ , 513  
Water temperature, 109